



# Iowa Influenza Surveillance Network (IISN)

## Influenza-like Illness (ILI) and Other Respiratory Viruses

### Weekly Activity Report



For the week ending December 20, 2014 - Week 51

All data presented in this report are provisional and may change as additional reports are received

#### Quick Stats

Percent of outpatient visits for ILI <sup>1</sup>	Data not available due to low reporting numbers
Percent of influenza rapid test positive	33.7% (804/2388)
Percent of RSV rapid tests positive	19.9% (39/231)
Percent school absence due to illness	3.79%
Number of schools with ≥10% absence due to illness	30
Influenza-associated hospitalizations <sup>**</sup>	130/5,716 inpatients surveyed
Influenza-associated pediatric mortality	0

<sup>1</sup> ILI: Influenza-like Illness is defined as a fever of ≥100° F as well as cough and/or sore throat.

<sup>\*\*</sup>Percent school absence due to illness are reported through a weekly survey of Iowa sentinel schools

<sup>\*\*</sup>Hospitalizations due to influenza are voluntarily reported through a weekly survey of Iowa sentinel hospitals

#### Iowa Influenza Geographic Spread<sup>2</sup>

No Activity
Sporadic
Local
Regional
<b>Widespread</b>

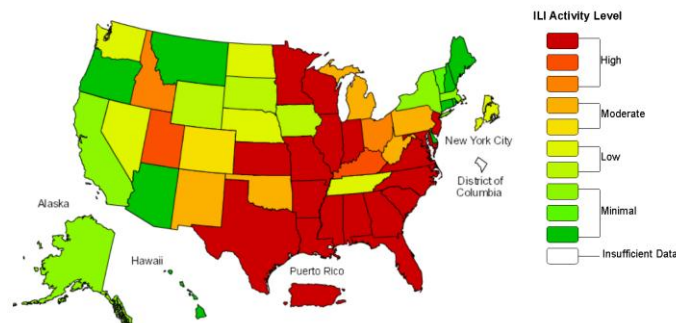
<sup>2</sup>This is based on CDC's activity estimates definition  
[www.cdc.gov/flu/weekly/overview.htm](http://www.cdc.gov/flu/weekly/overview.htm)

#### Iowa statewide activity summary:

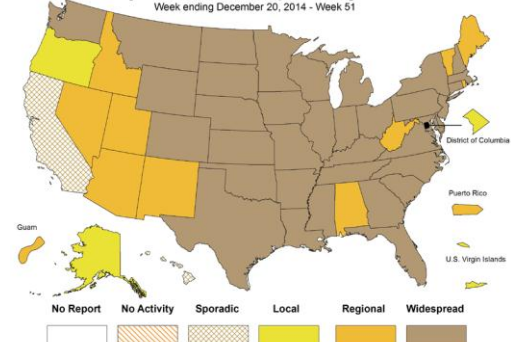
Influenza activity in Iowa continues to increase. For this reporting week, the State Hygienic Laboratory detected 96 flu A(H3N2), four flu B(Yamagata lineage) and three flu A(pending subtype) cases. Thirty schools reported 10 percent or greater absenteeism due to illness (most schools reported both respiratory and enteric illnesses) and seven long-term care outbreaks were investigated. This reporting week, 130 influenza-associated hospitalizations were reported from sentinel hospitals. In addition, 11 cases of adenovirus, three cases of parainfluenza virus type 2, one case of parainfluenza virus type 3, one case of parainfluenza virus type 4, five cases of RSV, four cases of hMPV and 37 cases of rhinovirus/enterovirus were reported to IDPH.

#### National activity summary - (CDC):

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2014-15 Influenza Season Week 51 ending Dec 20, 2014



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*  
Week ending December 20, 2014 - Week 51



**Synopsis:** During week 51 (December 14-20, 2014), influenza activity continued to increase in the United States.

**Viral Surveillance:** Of 21,858 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 51, 6,152 (28.1%) were positive for influenza.

**Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was at the epidemic threshold.

**Influenza-associated Pediatric Deaths:** Four influenza-associated pediatric deaths were reported.

**Influenza-associated Hospitalizations:** A cumulative rate for the season of 9.7 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.

**Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 5.5%, above the national baseline of 2.0%. All 10 regions reported ILI at or above region-specific baseline levels. Puerto Rico and 22 states experienced high ILI activity; six states experienced moderate ILI activity; New York City and eight states experienced low ILI activity; 14 states experienced minimal ILI activity; and the District of Columbia had insufficient data.

**Geographic Spread of Influenza:** The geographic spread of influenza in 36 states was reported as widespread; Guam, Puerto Rico, and 10 states reported regional activity; the District of Columbia, the U.S. Virgin Islands, and two states reported local activity; and two states reported sporadic activity.

Detailed information can be found online at [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/)

## International activity summary - (WHO):

Globally, influenza activity increased in the northern hemisphere with influenza A(H3N2) viruses predominating so far. The antigenic characterization of most recent A(H3N2) viruses so far indicated differences from the A(H3N2) virus used in the influenza vaccines for the northern hemisphere 2014-2015. Detailed information can be found online at

[www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/).

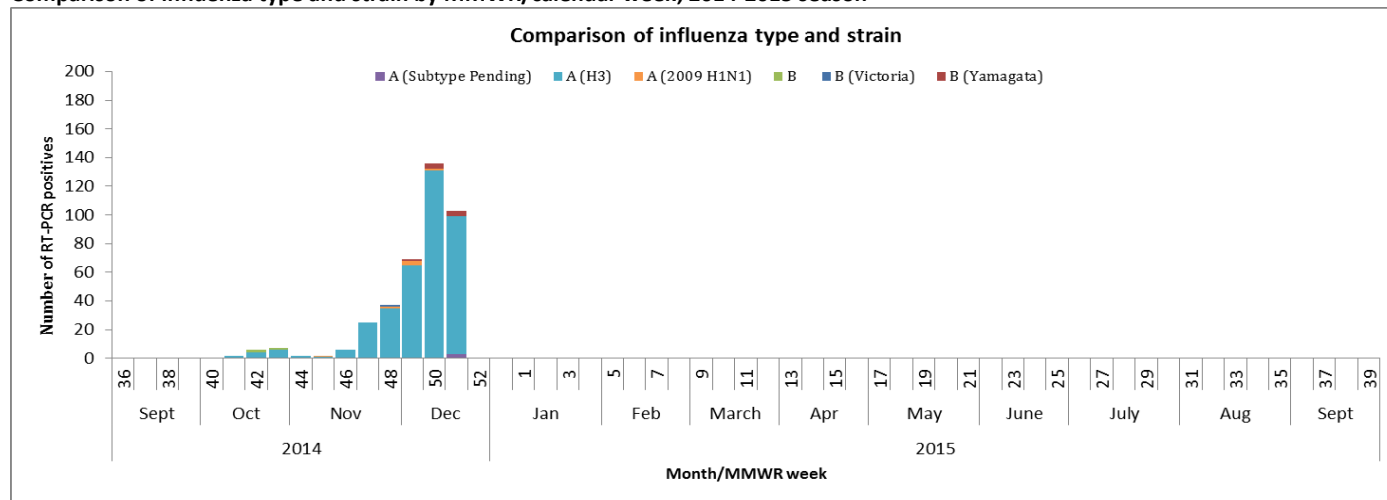
## Laboratory surveillance program:

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs for the number of rapid-antigen tests performed and number positive weekly. This report also includes the positive non-influenza virus tests reported from SHL, the Dunes Medical Laboratories at Mercy Medical Center in Sioux City, and Iowa Methodist Medical Center in Des Moines.

Age Group	CURRENT WEEK						YEAR TO DATE (9/1/14 – PRESENT WEEK)					
	Flu A			Flu B			Flu A			Flu B		
	A (2009 H1N1)	A (H3)	Subtype Pending	Victoria	Yamagata	Lineage Pending	A (2009 H1N1)	A (H3)	Subtype Pending	Victoria	Yamagata	Lineage Pending
0-4	0(0%)	9(9%)	0(0%)	0(0%)	1(25%)	0(0%)	2(33%)	39(11%)	0(0%)	0(0%)	2(22%)	0(0%)
5-17	0(0%)	16(17%)	2(67%)	0(0%)	2(50%)	0(0%)	1(17%)	81(22%)	1(11%)	0(0%)	3(33%)	1(25%)
18-24	0(0%)	11(12%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	43(12%)	0(0%)	0(0%)	0(0%)	0(0%)
25-49	0(0%)	7(7%)	0(0%)	0(0%)	0(0%)	0(0%)	2(33%)	53(15%)	2(22%)	1(100%)	2(22%)	0(0%)
50-64	0(0%)	8(8%)	0(0%)	0(0%)	0(0%)	0(0%)	1(17%)	32(9%)	1(11%)	0(0%)	1(11%)	3(75%)
>64	0(0%)	45(47%)	1(33%)	0(0%)	1(25%)	0(0%)	0(0%)	117(32%)	5(56%)	0(0%)	1(11%)	0(0%)
<b>Total</b>	<b>0</b>	<b>96</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>363</b>	<b>9</b>	<b>1</b>	<b>9</b>	<b>4</b>

\*Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information  
Only cases of Iowa residents are included  
\*Two influenza B Yamagata lineage was detected at CDC

## Comparison of influenza type and strain by MMWR/calendar week, 2014-2015 season

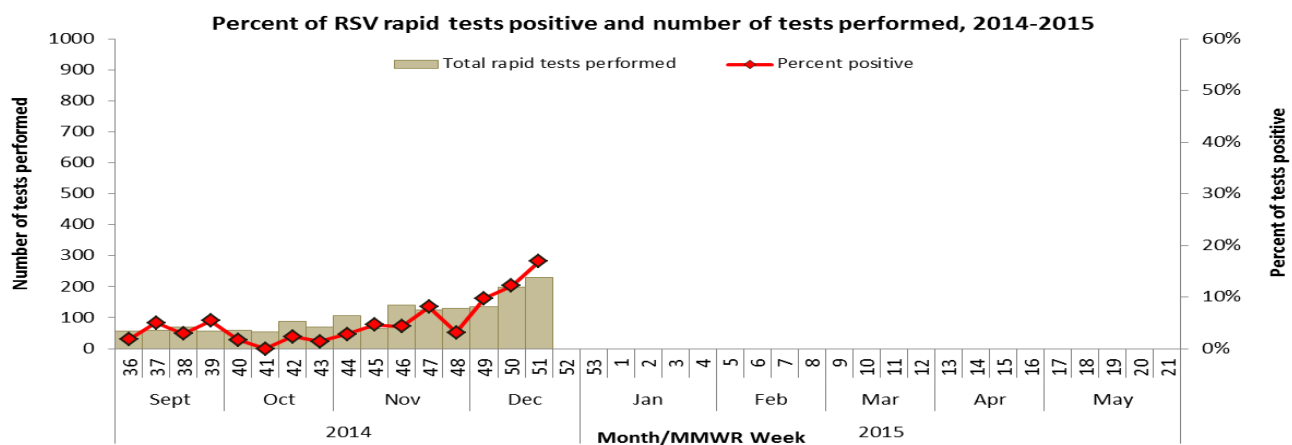
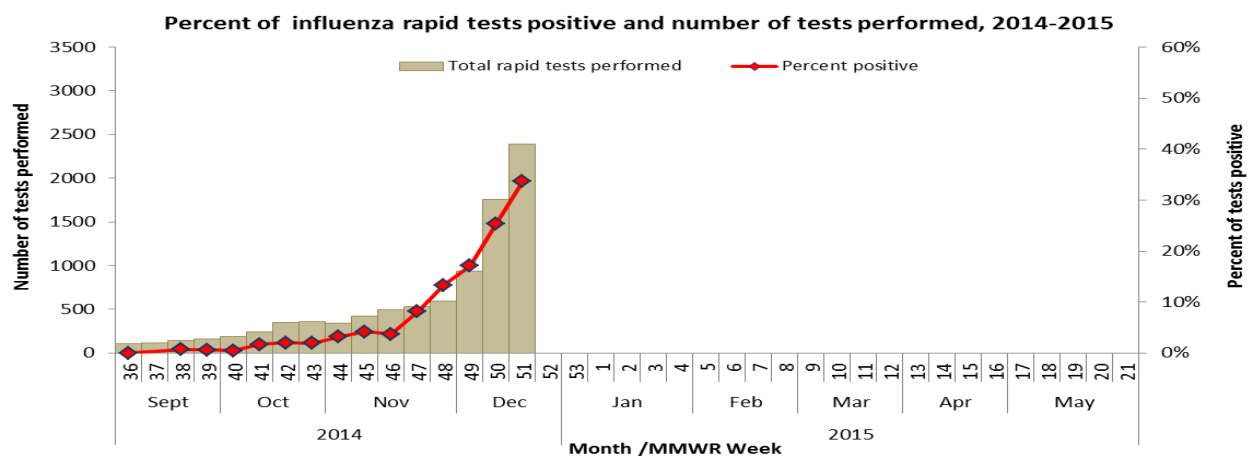


## Rapid influenza and RSV test surveillance:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of influenza and respiratory syncytial virus (RSV) rapid tests performed and the number of tests positive. This table includes only the number of patients tested for influenza or RSV at laboratory surveillance sites throughout the state. This table does not provide case counts.

REGION*	RAPID ANTIGEN INFLUENZA TESTS					RAPID ANTIGEN RSV TESTS		
	Tested	Flu A	Flu B	Undefined	% Positive	Tested	Positive	% Positive
Region 1	360	133	0	0	36.9	44	8	18.2
Region 2	89	22	1	0	25.8	5	0	0.0
Region 3	191	66	0	0	34.6	15	2	13.3
Region 4	146	49	1	0	34.2	8	1	12.5
Region 5	402	112	1	0	28.1	45	3	6.7
Region 6	1200	401	17	1	34.9	114	25	21.9
<b>Total</b>	<b>2388</b>	<b>783</b>	<b>20</b>	<b>1</b>	<b>33.7</b>	<b>231</b>	<b>39</b>	<b>19.9</b>

\*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



### Non-influenza respiratory virus:

Table 3: Number of positive results for non-influenza respiratory virus isolated by SHL, Mercy Dunes in Sioux City and Iowa Methodist Medical Center		
Viruses	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Adenovirus	11	98
Parainfluenza Virus Type 1	0	1
Parainfluenza Virus Type 2	3	73
Parainfluenza Virus Type 3	1	16
Parainfluenza Virus Type 4	1	10
Rhinovirus/Enterovirus	37	503
Respiratory syncytial virus (RSV)	5	17
Human metapneumovirus (hMPV)	4	7
<b>Total</b>	<b>62</b>	<b>725</b>

### Outpatient health care provider surveillance program (ILINet):

Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of Iowa's influenza surveillance. Iowa health care providers interested in joining this surveillance program should contact Kemi Oni at 515-725-2136 or [oluwakemi.oni@idph.iowa.gov](mailto:oluwakemi.oni@idph.iowa.gov) for more information.

Week 51 data (Table 4) not available due to low reporting numbers. This report will be updated as more data is received.

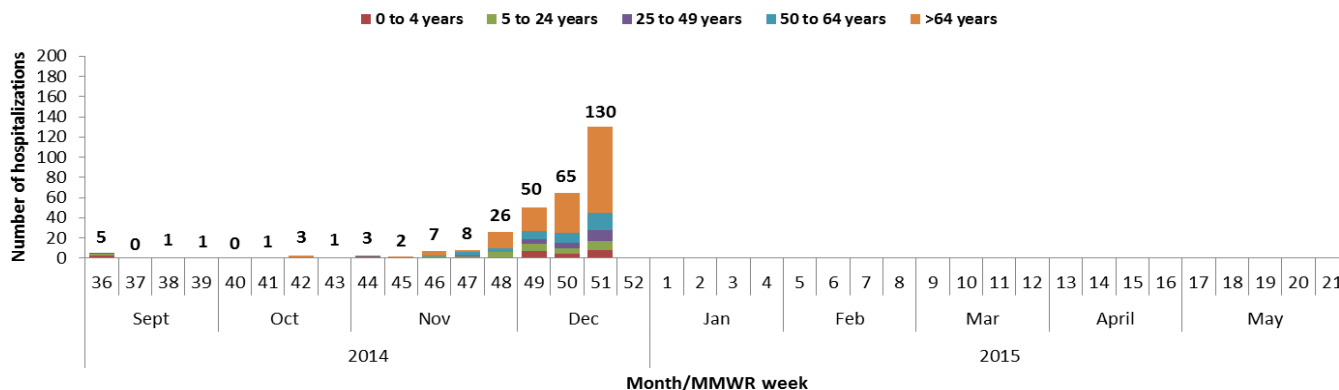
## Influenza-associated hospitalizations:

Sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week.

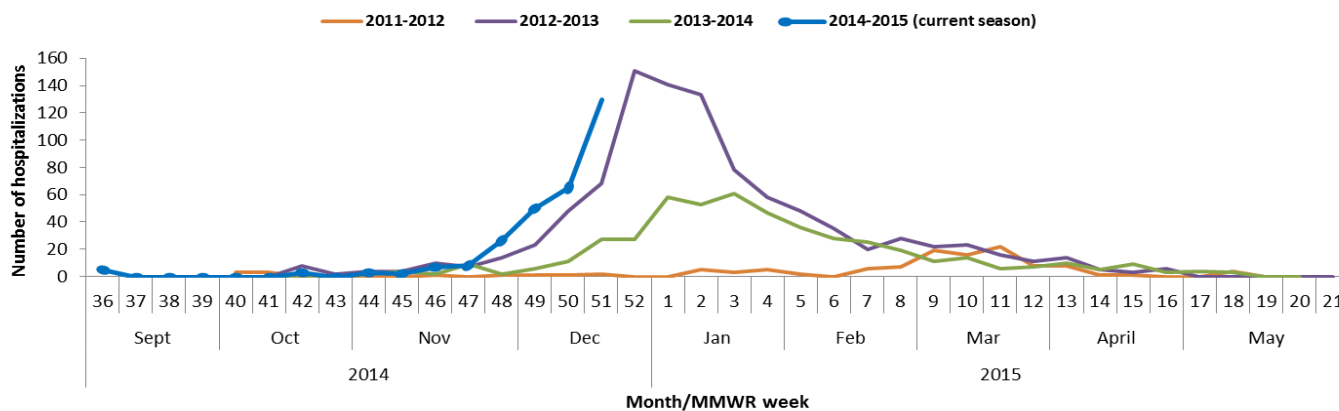
**Table 5: Influenza- associated Hospitalization report by age group**

	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age >64	Total
<b>Current Week</b>	8	9	11	17	85	<b>130</b>
<b>Cumulative (Sept 2014 – Present )</b>	28	31	24	46	174	<b>303</b>

### Influenza-associated hospitalizations by age groups, 2014-2015



### Influenza-associated hospitalizations reported by hospital surveillance sites



## Long-term Care Outbreaks

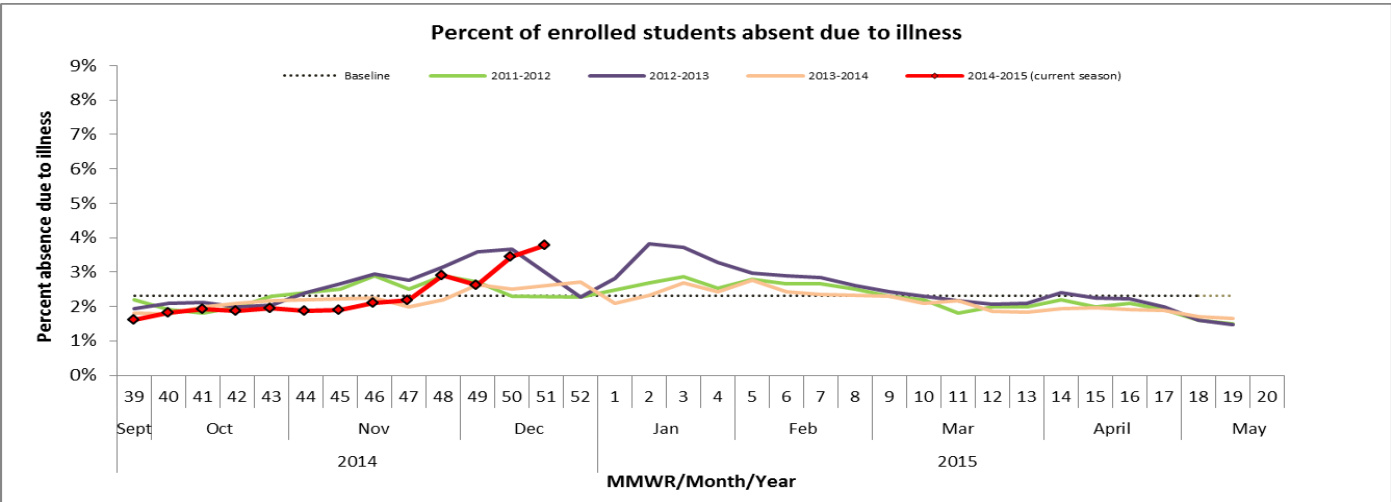
**Table 6: Number of schools with 10% absenteeism per region**

REGION*	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Region 1	5	7
Region 2	1	1
Region 3	0	1
Region 4	1	5
Region 5	0	0
Region 6	0	0
<b>Total</b>	<b>7</b>	<b>14</b>

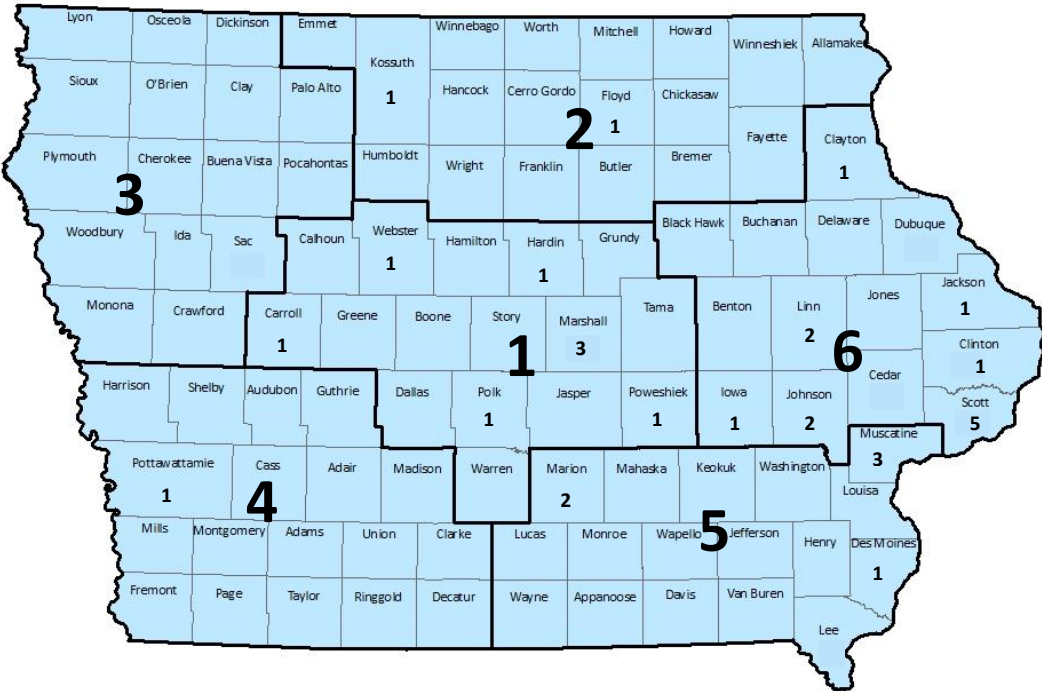
\*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.

### School surveillance program:

Sentinel schools that participate in IISN voluntarily track and report absence due to all illness (including non-influenza illnesses) and the total enrollment each week.

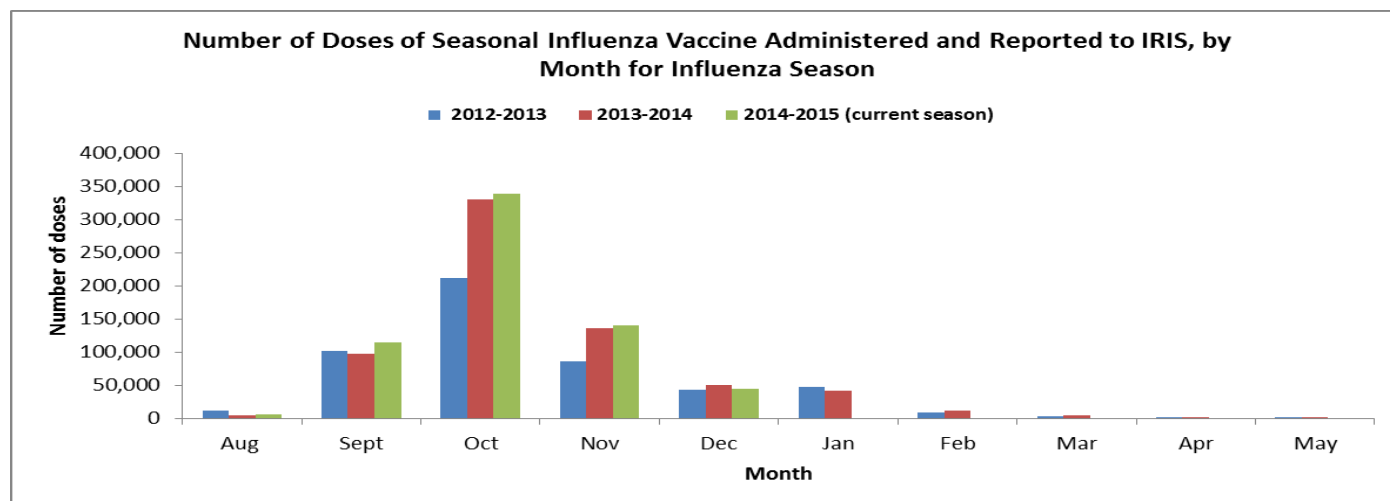


## Iowa regional map with schools that have $\geq 10\%$ absence due to illness – Week 51



## Seasonal influenza vaccination:

Seasonal influenza vaccination data in Iowa is based on doses reported to the Iowa Immunization Registry Information System (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunization for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state of Iowa. For more information on the immunization data, contact Kim Tichy, IRIS coordinator at 515-281-4288 or [kimberly.tichy@idph.iowa.gov](mailto:kimberly.tichy@idph.iowa.gov)



Note: The data for the 2014-2015 season is only up to the current week and there is a lag between the vaccine administration date and the date reported to the IRIS. The current season's data will be adjusted as additional data is received.

## Other resources:

### Vaccine:

Influenza vaccine recommendation: <http://www.idph.state.ia.us/ImmTB/Immunization.aspx?prog=Imm&pg=Flu>

CDC vaccine information: <http://www.cdc.gov/flu/faq/flu-vaccine-types.htm>

Vaccine finder: <http://vaccinefinder.org/>

### Neighboring states' influenza information:

Illinois: <http://www.idph.state.il.us/flu/surveillance.htm>

Minnesota: <http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html>

Missouri: <http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php>

South Dakota: <http://doh.sd.gov/diseases/infectious/flu/>

Wisconsin: [www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm](http://www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm)

Google Flu Trends: <http://www.google.org/flutrends/us/#US-IA>